

Ç

FIG. 1

MeBr Headspace Conc. vs. Time

Run #1 MeBr + ATLOX Surfactant + Water

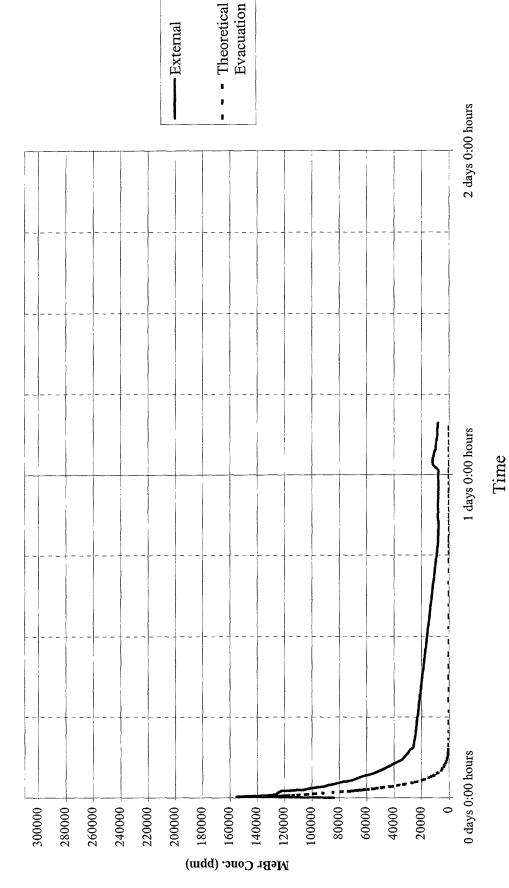


FIG. 2a

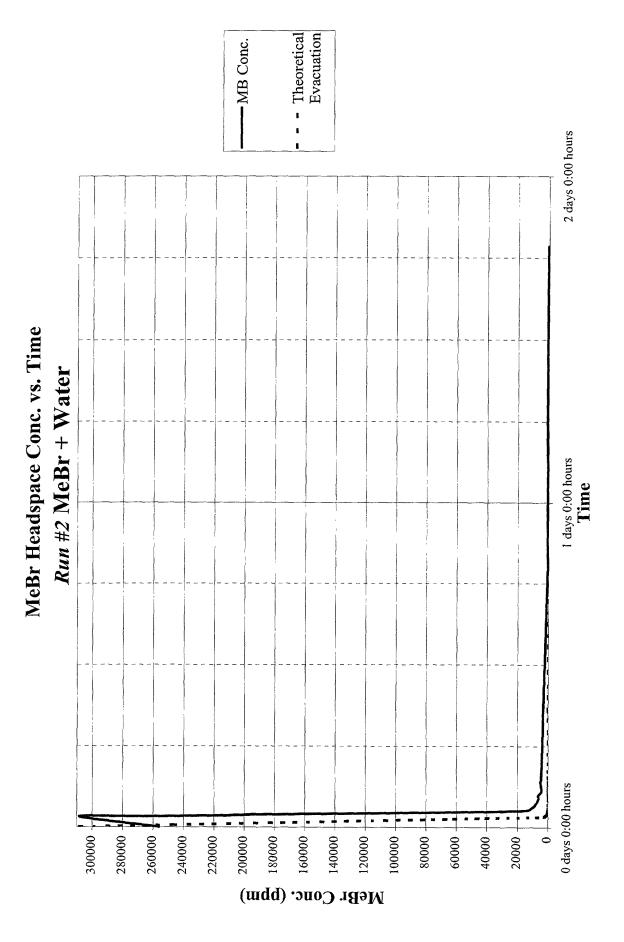


FIG. 2b

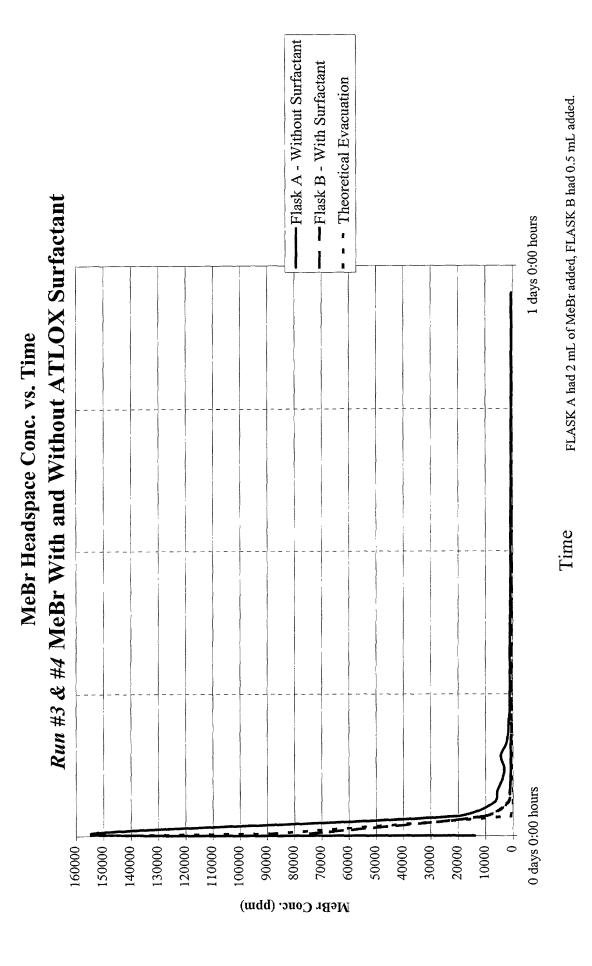


FIG. 2c

Treatment of Different Types of Tubing with Chloropicrin Formulation

Tubing Type	Immediate Rx	Wall Thickness After 15 Hours	Elasticity/Strength After 15 Hours	General Appearance Integrity After 15 Hours
Black Seamless Latex	None	No change	Maintained	No effect
FEP Teflon	None	No change	Maintained	No effect
Nalgene 860 Tissue				
Culture Grade	None	No change	Maintained	Sticky
Manosilt	None	No change	Maintained	No effect
Tygon R3603	None	Reduced thickness	Reduced slightly	Appeared melted
Nalgene 180 Premium PVC	None	Reduced thickness	Reduced slightly	Slightly opaque, appeared melted

FIG. 3

Drip Application Nematode Efficacy - Chloropicrin

of Various EC Percentages

Summary of Results

			Nem	Nematode Species ,	cies "			
Cylinder#	Root Knot (Meloidogyne)	Dagger (Xiphinema)	Cit	Pin	Root Knot Dagger (Meloidog (Xiphinem yne)	Dagger (Xiphinem a)	Citrus	Pin
	1	Counts	***************************************			- Adjusted Counts	Counts	<i>ω</i>
		•	0),		15	0	504	0
- (200	2	216	2,6	99	12	648	84
7	77	÷	456		3	9	1368	0
0 4	67	1	338	6	147	0	1014	27
5	0		7		0	0	21	0
9	23		40	7	69	0	120	12
2	112		08	+1	336	0	240	42
8	29		79		87	0	237	0
0	0		114		0	0	342	0
2	16		72		48	0	216	0
Ε	22		160		99	0	480	0
12	29		87		87	0	261	0
13	115		136		345	0	408	0
14	16		30		48	0	06	0
15	22		31		99	0	93	0
191	62		82		237	0	246	0
11	15		17		45	0	51	0
18	30		81		8	0	243	0
0.	69		109		207	0	327	0
200	26		89		78	0	204	0
124		TT						

§ 33% extraction efficiency, measured values multiplied by 3 a No counts were obtained for Ring nematode statistical analysis.

FIG. 4

Chloropicrin EC - Lab Tests for Weed Seed Mortality

Seed Germination
1
-
-
1
- 1
+
_

HIGHLY SIGNIFICANT DIFFERENCE @ 99%

NEW SEED
Anova Single Factor

 SUMMARY
 Count
 Sum
 Average
 Varience

 Row 1
 4
 129
 0.3225
 0.009025

 Row 2
 4
 3.16
 0.79
 0.0060667

 Row 3
 4
 3.61
 0.9225
 0.004425

 Row 4
 3.91
 0.9525
 0.004425

 Row 5
 4
 3.81
 0.9525
 0.0004333

 Row 6
 4
 3.81
 0.9525
 0.000448167

 Row 7
 4
 3.87
 0.9575
 0.00149167

 Row 7
 4
 4
 4
 1

ANOVA S of MS F P-value F crit Source of Variation SS of MS F P-value F crit Between Groups 1 3926 6 0 2321 74 6416539 4 547E-13 5 8807927 Within Groups 1 4579 27

FIG. 5a

% Mortality of New Weed Seeds Over Control Pigweed

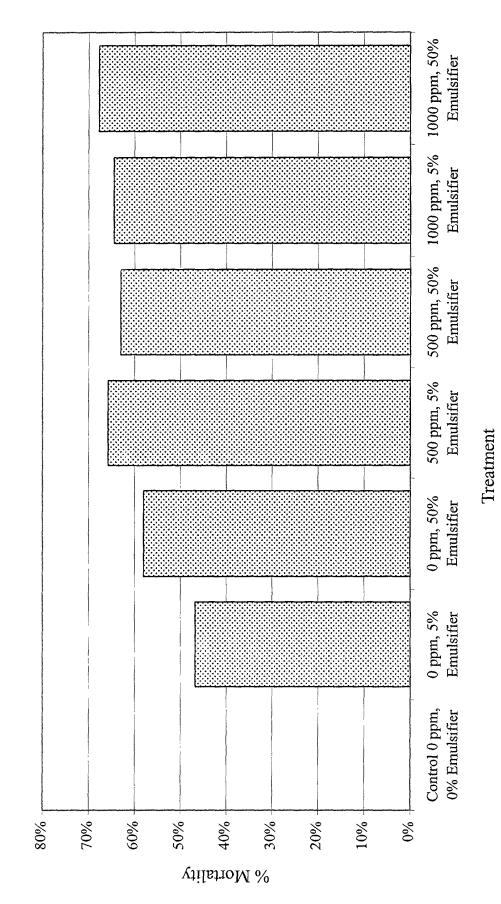


FIG. 5b

Chloropicrin EC - Lab Tests for Weed Seed Mortality WHITE SWEET CLOVER

Wood Cood.	Wand Sand. Malifornis albo		Treatm	Treatment Date = 10/28/1999	10/28/1999	Z	Number of Seeds/Dish =	ds/Dish =	100											
weed Seed.	Memory as aroa			S	Continuing Counts	Con Coit	nto							(% Mortality)	ality)					
		_		200									-	-	ì					
-			Date	of Count =	Date of Count = 11/05/1999		Date	Date of Count = 11/09/1999	6661/60/1				-							-
		Elapse	Elapsed Time from Treatment =	Freatment =	8 Days	Elapsed	Elapsed Time from Treatment =		12 Days										1.7	-
																			% Mortality	tality
													1st	lst Count				2nd Count	int Above	ve
	Trootmont		1et C	1et Count			2nd Count	onut			1st Count	Ħ	ä	at 8 Days		2nd Count	ŧ.	at 12 Days	iys Control	Lol
	Trailliant	-	2		4 62	8	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3 R	Rep 4	Mean	Rep I	Rep 2	Rep 3 Rep 4	4 Mean		
Т	reatment Solution	L L	┸			· ·	=	, ×1	Ţ		H	_	94%	%16	%96	%68	85% 94%	% 81%	%0	,e
- 1	Control 0 ppm, 0% Emulsitier	4	=	2 .			-	2 -		%06	+	╁	%16	93%	%06	93%	%16 %16	6 93%	7%	\c
NEW SEED	0 ppm, 5% Emulsifier	2	\	S	,	2		,	,	050	+	+	-	%56	94%	%96	93% 95%	% 66%	4%	,o
NEW SEED	0 ppm, 50% Emulsifier	5	4	7	5	۰	*	1	, ,	, 22.ve	╁	+	\downarrow	01%	%50	92%	╀		2%	°
NEW SEED	500 ppm, 5% Emulsifier	v	3	4	-	~	2	١	7	97.0%	+	+	+			2 200	╀	-	1	
NEW SEED	500 nom 50% Emulsifier	s	2	-	7	7	7	_	\$	%56	%86	%66	%86	%8%	93%	+	+	4	-	
dans man	1000 mm 69/ Emilifer	-	,		0	-	4	3	0	%66	%86	97%	%001	%66	%66	%96	97% 100%	-		
NEW SEED	Total plan, 278 Estimistrica	. «	,		1	6	-	-	2	100%	%86	%001	%16	%66	100%	87%	%56 %66	% 62%	4%	۴
NEW SEED	1000 ppm, 50% Emuisitie		,																	
										7050	7000	7090	7010	%06	70% 20%	75%	%68 23%	% 11%	-3%	%
- 1	Control 0 ppm, 0% Emulsifier	2	= ,	4 3	۲	96	C7 °	- %	2 02	%50	03%	╀	╀	83%	95%	95%	74% 61%	%08 %	%0	%
- 1	0 ppm, 5% Emulsifier	2	. ;	57	55	0	٤	3 2	32	%996	%06	╀	82%	%68	94%	%88	76% 73	73% 83%	3%	%
OID SEED	0 ppm, 50% Emulsifier	4	≥ .	<u>-</u>	9	0 1	1,	5 ,	; =	030%	%80 086%	╁	%16	%56	93%	%86	98% 86	86% 93%	13%	%
OLD SEED	500 ppm, 5% Emulsifier	_	2	5	,	,	, !	,			è	+	040	%070	75%	85%	94% 91%	% 98 %	7%	2
OLD SEED	500 ppm, 50% Emulsifier	Ξ	7	_	~	25	2	٥	ń	8970	3276	+	27.7	2	ì) in	╀	-		%
OLD SEED	1000 ppm, 5% Emulsifier	23	9	0	12	23	3	0	12	77%	97%	+	%8%	21.%	0/./	2,7	+	1	+	2
	1000 ppm, 50% Emulsifier	0	12	3	16	0	18	4	56	100%	%88	97%	84%	%26	100%	82%	76%	/4% 00%		•
	NEW SEED				No Significance	cance				OLD SEED	Q.		Š	No Significance	9					
	Anova: Single Factor									Anova Single Factor	e Factor									

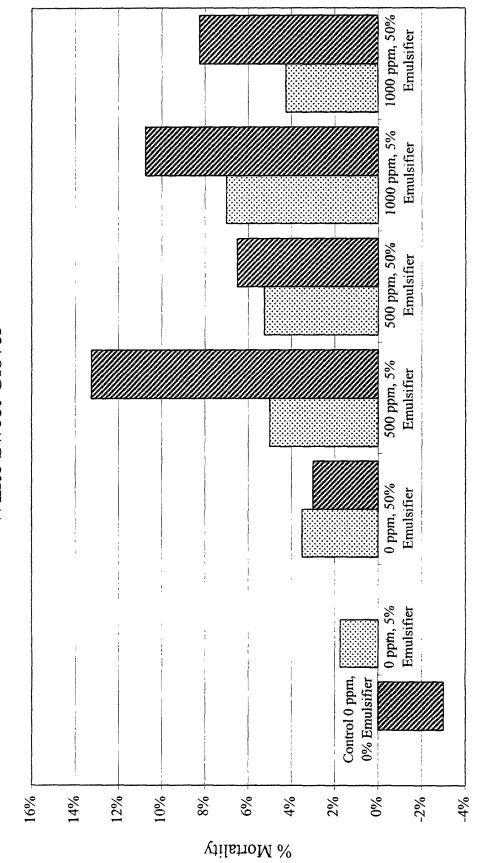
No Significance		Sum Average Variance	3 64 0 91 0 00246867	3 71 0 9275 0 00095833	378 0945 000016867	3 84 0 96 0 0003333	3 85 0 9625 0 00075833	3 92 0 98 0 00033333	3.81 0 9525 0 00349167
		Count	*	**	4	₹	4	4	•
NEW SEED	Anova: Single Factor summary	Groups	Bow 1	Row 2	Bow 3	Bow 4	Bow 5	Bow 6) iii

MS F P-value Fort	0 0012155 1 79431929 0.1489903 2 5727118	
ρ	8 0.002181 21 0.0012155	27
SS	0 0130857	0 0386107
ANOVA Source of Vanation	Between Groups Within Groups	Total

Groups	Count	Sum	Average	Variance
Row 1	4	307	0.7675	0.00709186
Row 2	4	3 19	0 7975	0.022825
Row 3	4	331	0 8275	0 009825
Row 4	4	3 72	0 93	0 0028
Row 5	4	3.45	0 8625	0 007025
Row 6	*	3 62	0 905	0 0 0 0 0 0
Row 7	4	3 52	0.88	0 014666667

1"	ANONA						
0.081971 6 0.013682 1.279661017 0.30875 0.2242 2.1 0.010676 0.308171 27	ource of Variation	SS	οţ	MS	7	P-value	Foil
0 2242	Between Groups		8	0.013662		_	2 572712
0 306171	Within Groups	0 2242	2	0 010676			
	Total	0 306171	27				

% Mortality of New Weed Seeds Over Control White Sweet Clover



Treatment FIG. 6b

Chloropicrin EC - Lab Tests for Weed Seed Mortality WILD MUSTARD

	WILD MUSIARD																		
Weed Seed:	Weed Seed: Brassica kaber		Treatm	ent Date ==	Treatment Date = 10/28/1999	۵.	Number of Seeds/Dish ==	ds/Dish =	100			No. of Contract of		Charles II was an order			***************************************		La constitue de la constitue d
				See	Seed Germination Counts	ation Cor	nts						-	(% Mortality)	ality)			_	
			Date	of Count =	Date of Count = 11/05/1999		Date	Date of Count = 11/09/1999	6661/60/1										
		Elapsed	Time from	Elapsed Time from Treatment ==	8 Days	Elapsed	Elapsed Time from Treatment ==	reatment ==	12 Days										
ak ali																			% Mortality
													İst	1st Count				2nd Count	t Above
	Trootmont		let	1st Count			2nd Count	ount			1st Count	ıı) TR	at 8 Days		2nd Count		Ħ	Control
	Heamient	-	-		Den 4		Ren 2	Rep 3	Rep 4	Rep 1	Rep 2 F	Rep 3 F	Rep 4	Mean	Rep 1 R	Rep 2 Rep 3	p3 Rep4		
Seed Age	Treatment Solution	rep :	2 day 2	c day	, c			8	5.4	┞		_	67%	64%	40%	49% 51	51% 46%	6 47%	%0
NEW SEED	Control 0 ppm, 0% Emulsifier	3	85	3 5	6	8 8		\ \ \ \	02	%99	+	╀	-	%69	20%	22% 2	25% 21%	6 22%	-25%
- 1	0 ppm, 5% Emulsifier	34	67	35	87	8	9 1	2 6	: 6	73%	╀	+	╀	70%	%61	23% 30	30% 18%	6 23%	-24%
NEW SEED	0 ppm, 50% Emulsifier	28	31	29	32	*	;	2	70	0/7/	+	+	+	700/	╀	ļ.	%07	L	-30%
NEW SEED	500 ppm, 5% Emulsifier	34	2	35	36	82	72	16	88	%99	+	+	\downarrow	0/0	+	+	+	+	280/
1	500 mm 50% Emulation	9	92	01	24	83	92	08	82	%09	74%	%06	. %9 <i>L</i>	75%	+	+	+	4	707
NEW SEED	1000 ppm, 200 pmmsms	S	=	ı.	22	8	98	02	92	20%	%69	82%	78%	75%	%61	20% 3	30% 24%	-	-7.5%
- 1	1000 ppm, 378 emmesmen		: -	,	F	35		12	41	%69	%68	97%	26%	%61	%4%	87% 8	88% 26%	4 75%	78%
NEW SEED	1000 ppm, 50% Emulsifier	15	=	٩	;														
			Dat	e of Count =	Date of Count = 11/08/1999														
		Elapsec	1 Time from	Elapsed Time from Treatment =	11 Days										<u>.</u>	<u></u>		7000	00%
0.00	Control 0 mm 0% Emilsifier	6	_	٥	-	0	_	0	-	%001	%66	100%	. %66	100%	%001	+	4	4	2
	Collide o ppm; c/a collide	,	1,	6	1	2	2	0	-	%86	%86	100%	%66	%66	%86	08%	%66 %001	\dashv	%1-
	0 ppm, 5% Emuistifer	, .	١	,	. -	-	6	6	-	%66	%001	100%	99%	100%	%66	00%	%66 %001		%0
OTD SEED	0 ppm, 50% Emulsifier	-		,	- ,	. ,			-	%80	%001	%001	%001	7001	%86	100%	%001 %001	%001 %	%0
OLD SEED	500 ppm, 5% Emulsifier	2	٥	0	<u> </u>	7	,	,	,	70.00	┿	076%	\vdash	%86	%16	6 %86	%001 %26	%86 %	-2%
OLD SEED	500 ppm, 50% Emulsifier	3	7	-	0	-	7	1		2/12) io	70001	\downarrow	100%	+	+-	100% 100%	100%	%0
OLD SEED	1000 ppm, 5% Emulsifier	o	٥	٥	٥	٥	٥			W 201	+	4	+	1000/	╀	╀	100%	L	%0
OLD SEED	1000 ppm, 50% Emulsifier	0	0	٥	٥	0	٥	0	0	100%		100%	10076	0/ /0	-	-	-		and the contract of the contra
ACCOUNT OF THE PARTY OF THE PAR		THE OWNER OF THE OWNER,																	

NEW SEED Anova Single Factor				SIGNIFICANT DIFFERENCE @ 99%	DIFFERENC	E @ 99%	OLD SEED Anova Single F	OLD SEED Anova Single Factor
>defined 5							SUMMARY	۲۰
Sound	Count	Sum	Average	Variance			Groups	Count
1,000	4	1 86	0 465	0 0023			Row 1	4
104 C	4	0.88	0 22	0 000466667			Row 2	4
2 MON 2	7	60	0 225	0 002966667			Row 3	4
ROW 3	•	0.67	0.1675	0.007025			Row 4	4
Row 4	4	000	200	- 1			d and	•
Row 5	4	920	0 19	0 19 0 0001533333			C MON	•
e in a	4	0 93	0 2325	0 2325 0 002491667			Row 8	4
Row 7	4	2 98	0 745	0 745 0 022966667			Row 7	1
							4XCN4	
ANOVA								ł
Source of Variation	SS	Jρ	MS	ų.	P-value	Fort	Source of Variation 55	000128
Between Groups Within Groups	1 0739357 0 11925	21 6	6 0 1789893 21 0 0056786	6 01789893 3152012579 1.866E-09 34117491 :1 0.0056786	1.86615-09	3811/491	Within Groups 0 001375	s 0.001375

SIGNIFICANT DIFFERENCE @ 95%

	Fort	2 572712	
	P-value	0 023236	
	T.	3 145454545	
	MS	6 0 000206 21 6.55E-05	
	ıρ	6 21	27
	SS	0.001236	Total 0 002611
ANOVA	Source of Variation	Between Groups 0 001236 Within Groups 0 001375	Total

FIG. 7a

% Mortality of New Weed Seeds Over Control Wild Mustard

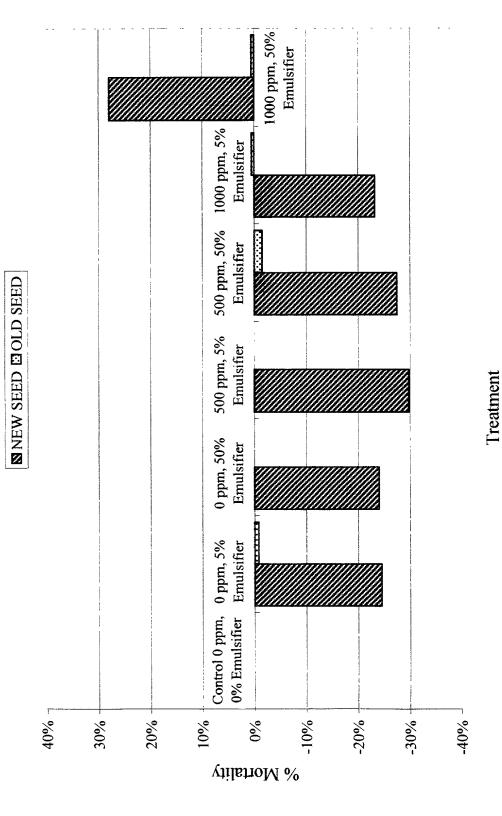


FIG. 7b

Chloropicrin EC - Lab Tests for Weed Seed Mortality

NUTGRASS YELLOW

Rep 2 Rep 3 2nd Count 100% 100% 100% %001 100% 100% 100% %86 100% Rep | (% Mortality) 100% 100% 100% 100% %001 100% 100% 100% 1st Count at 8 Days 100% 100% 100% Mean 100% 100% 100% 100% 100% 100% %001 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% %001 100% Rep I Rep 2 %001 100% 100% 100% %001 100% **%001** %001 %001 100% 100% 100% %001 Date of Count = 11/09/1999 Elapsed Time from Treatment = 12 Days Rep 4 Number of Seeds/Dish = Rep 3 2nd Count Rep 2 Seed Germination Counts Treatment Date = 10/28/1999 Date of Count = 11/05/1999 Date of Count = 11/08/1999 Elapsed Time from Treatment = 8 Days Elapsed Time from Treatment = 11 Days 1st Count Rep 2 0 0 Control 0 ppm, 0% Emulsifier Control 0 ppm, 0% Emulsifier Weed Seed Cyperus esculintus 1000 ppm, 50% Emulsifier 500 ppm, 50% Emulsifier 1000 ppm, 5% Emulsifier 500 ppm, 5% Emulsifier 0 ppm, 5% Emulsifier 0 ppm, 50% Emulsifier 0 ppm, 50% Emulsifier 0 ppm, 5% Emulsifier Treatment OLD SEED NEW SEED NEW SEED NEW SEED NEW SEED NEW SEED NEW SEED OLD SEED NEW SEED

% Mortality
Above
Control

at 12 Days

Rep 4

100% %001 %001 %001 **%001** 100%

-1% %1-0%

%66

%56 98% 100%

100% 99% 100%

%0

100% 100% 100%

100% 100% 100%

% %

100%

%001 100% %001

%0 %0

100% 100% 100%

100%

100%

100% 100% 100%

100% 100% 100% 100% 100%

%001 %001 100%

%00I 100%

100% 100% 100% 100% 100%

100% %001

100%

%001 100%

%001

0 0

0 0

%001 100%

100%

100% %001

%0

100%

100%

%001

100% 100%

%001

%001

100%

100% 100%

100%

No Significance NEW SEED Anova Single Factor

SUMMARY

1000 ppm, 5% Emulsifier 1000 ppm, 50% Emulsifier

OLD SEED

500 ppm, 50% Emulsifier

500 ppm, 5% Emulsifier

OLD SEED

OLD SEED

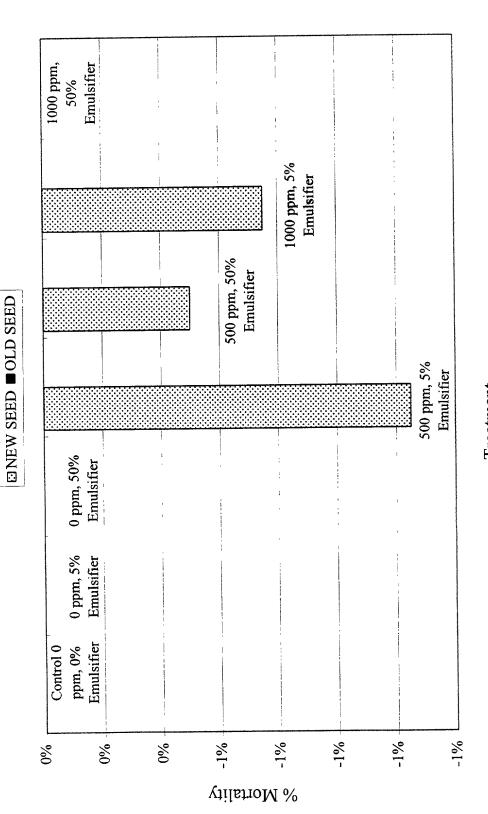
OLD SEED

No Significance

	4	٠	•	-
Row 2	4	~	-	0
Row 3	₹	4	-	0
Row 4	*	3.85	0 9875	0 000625
Row 5	4	388	0 895	<u>1</u>
Row 6	•	3.87	0 9925	9.16667E-05
Row 7	*	4	-	0

ANOVA						
Source of Variation	SS	j,	WS	IJ.	P-value	Fcrit
Between Groups	0 0005929	9	9 881E-05 C	0 846938778	0 5484524	2 5727118
Within Groups	0 00245	2	21 0 0001167			
Total	0 0030429	27				

% Mortality of New Weed Seeds Over Control Yellow Nutgrass



Treatment

FIG. 8b

Chloropicrin EC - Lab Tests for Weed Seed Mortality

YELLOW SWEET CLOVER

%06 100% %001 100% 97% %16 83% 62% 20% 2nd Count %66 %56 %06 82% 67% 98% 100% %88 88% %16 Rep 1 (% Mortality) 96% %66 71% 75% %56 %98 at 8 Days 97% %86 %06 %06 %92 76% %16 %16 %66 %96 92% 98% 96% 100% 96% %16 %08 97% 88% %86 97% %00I 77% %\$6 %68 %86 100% %88 %66 76% %/6 88% 72% 75% 95% 99% 97% 96% %16 Date of Count = 11/09/1999 Elapsed Time from Treatment = 12 Days Rep 3 Rep 4 100 2 Number of Seeds/Dish = 30 12 0 2nd Count 2 0 Seed Germmation Counts 7 8 2 Date of Count = 11/05/1999 Treatment Date = 10/28/1999 Date of Count = 11/08/1999 Elapsed Time from Treatment = 11 Days Elapsed Time from Treatment = 8 Days 2 1st Count Rep 2 23 Control 0 ppm, 0% Emulsifier Control 0 ppm, 0% Emulsifier 1000 ppm, 50% Emulsifier 500 ppm, 50% Emulsifier 1000 ppm, 5% Emulsifier 500 ppm, 5% Emulsifier 0 ppm, 50% Emulsifier Weed Seed: Melilotus indica NEW SEED 0 ppm, 50% Emulsifier 0 ppm, 5% Emulsifier 0 ppm, 5% Emulsifier Treatment NEW SEED OLD SEED NEW SEED OLD SEED NEW SEED NEW SEED NEW SEED NEW SELD OLD SEED

% Mortality Above Control

2nd Count at 12 Days

Mean 88%

%76 93% %08

-16% 3% 10% -2%

> 92% 98% %96

86% 72% 91% %16 %96

12%

%001

%6

%9-%0 **4%** %0

%16

96% 93%

%001 %16 97% 100%

100% %001 %001

%001

100%

100% 100%

%88

100% 100% 100%

> %66 %16

100% 97% 100% 100%

%001

%88 %88 100%

100% %001

100% 100%

> 0 0

12

2

OLD SEED 1000 ppm, 5% Emulsifier OLD SEED 1000 ppm, 50% Emulsifier

500 ppm, 50% Emulsifier

OLD SEED

азэѕ ато

500 ppm, 5% Emulsifier

% % %

100%

100%

100%

%001

SIGNIFICANT DIFFERENCE @ 99%

0.003425 0.000425

0 9675

95%

NEW SEED Anova Single Factor				SIGNIFICANT D	SIGNIFICANT DIFFERENCE @ 99%	OLD SEED Anova: Single Factor	3D ple Factor	
CHAMADO						SUMMARY		
Granas	Count	Sum	Average	Variance		Groups	Count	Sum
	Ψ	3.5	0.875	0 0041		Row 1	4	•
- MOM -	•	77.	0.86	0.00246667		Row 2	4	
KOW Z	•	288	0.73	0.00313333		Row 3	4	
Kow 3	• •	20 %	5	0.01176867		Row 4	4	
Kow *	* •	200	200	0000 0000		Row 5	•	
KOW 3	7	, e	960	0.96 0.00246667		Row 6	*	
Now 2	4	3.97	0.9925	0 000225		Row 7	4	

	5	3 81 1749		
	P-value	0 001861		
	u.	5 281931464		
	MS	0 004037	21 0 000764	
	ð	9	21	27
	SS	0 024221	0 01605	0 040271
ANOVA	Source of Van	Between	Within Gr 0 01605	Total

5.5 0.20865 0.073075 0 279725

ANOVA
Source of Vanation
Between Groups
Within Groups

Total

FIG. 9a

% Mortality of New Weed Seeds Over Control Yellow Sweet Clover

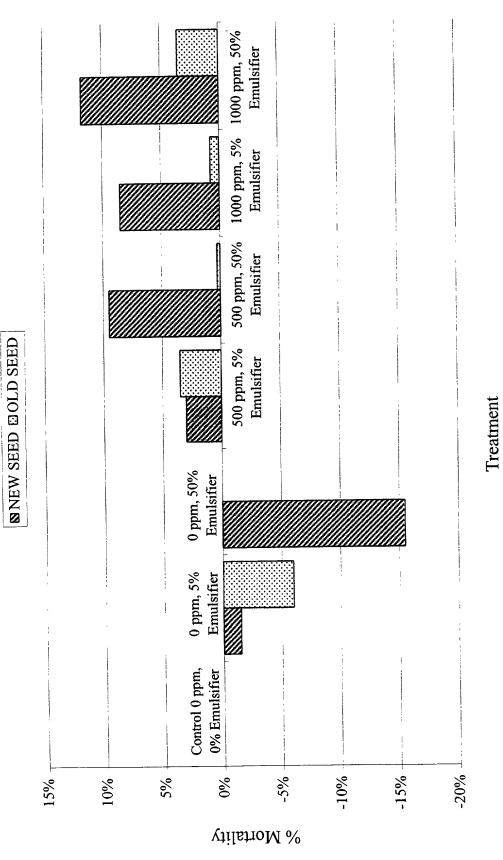


FIG. 9b

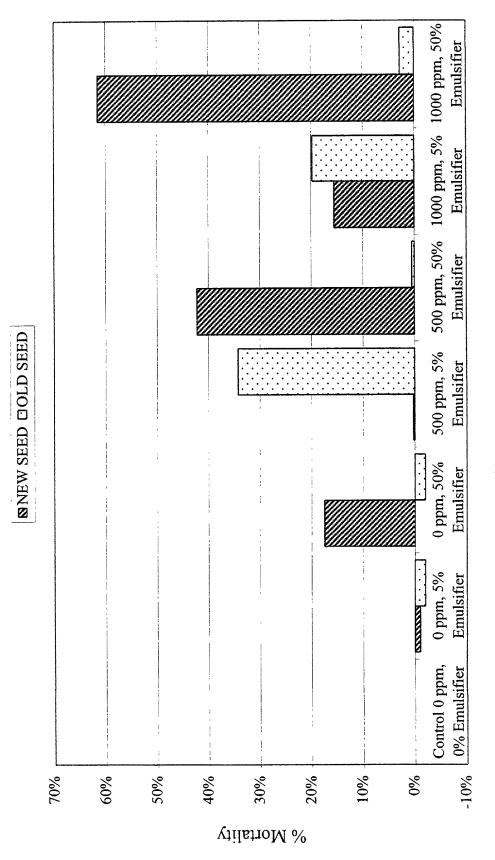
Chloropicrin EC - Lab Tests for Weed Seed Mortality BARNYARD GRASS

				% Mortality	Above	Control		%0	-1%	18%	%0	47.0%	2000	10%	62%			%0	700	0/7-	%.7-	34%	1%	70%	30%	270	92.60	
					2nd Count	at 12 Days	Mean	%9	5%	24%	769	760/	0/04	%77	%89			70%	200	0.70	%0	36%	3%	22%	20%	0.70		
and the second second	_						Rep 4	18%	%0	%9	790,	20,00	80	5%	%99			/90	2	%0	%0	83%	2%	72%	ì	%/		
						2nd Count	Rep 3	%9	%	85%	è	1078	%(C)	2%	93%			100	85	9%	%0	2%	2%	%0		0%0		
CONTRACTOR CONTRACTOR	<u> </u>					2nd	Rep 2	%0	%6	%0	,	8,5	%//	7%	95%				3%	%	%0	7%	%0	%	+	9,9		
	(% Mortality)						Rep 1	%0	70%	30%		%n	41%	%69	19%				%	%	%0	20%	%0	15%		%	cance	
AND THE RESERVE AND THE PERSON NAMED IN	∝ %) -				1st Count	at 8 Days	Mean	18%	24%	760/	20,07	%67	%70	46%	71%				0%0	%0	3%	38%	%9	340%	+	12%	No Slanificance	, }
							Rep 4	%65	2	è	80	21%	%	7%	%89				%0	%0	%0	%16	8%	7000	8 8	10%		
						1st Count	Rep 3	12%	%	ì	82%	%=	82%	2%	88%				%0	%	%1	2%	11%	è	+	18%		jo.
						ısı	Rep 2	%	36	\$ 8	+	\dashv	94%	62%	94%				2%	%	7%	7%	+	+	+	12%	OI D CEED	Anova Single Factor
		6					Rep	╁	7600	200	%6	27%	%69	%56	28%				20%	%	3%	20%	10%		24%	7%	d IO	Anova
100		- 11/00/19	= 12 Day				Rep 4	62	\$ 5	3	24	88	00	95	12/2				100	200	100	12	8	1	97	83		
Seeds/Dish		Date of Count = 11/09/1999	Treatment			2nd Count	Rep 3	╀	1 2	3	2	8	23	જ	-				100	100	8	8	30	2 3	3	95		*
Number of Seeds/Dish =	unts	Dai	Elapsed Time from Treatment = 12 Days			2nd	Ren 2	90.	3 5	3	8	26	23	93	•				26	001	<u>8</u>	g	2 3	3	100	98		NCE (3)
	ation Co		Elapsed				Ren	99	3 8	⊋	26	100	8	31	5				95	8	8	ş	3	3	82	66		IT DIFFERE
Treatment Date = 10/28/1999	Seed Germination Counts	Date of Count = 11/05/1999	8 Days				B		14	\$	8	79	100	86	2	35	Date of Count = 11/08/1999	11 Days	8	81	92	٥	,	7	20	8		SIGNIFICANT DIFFERENCE @ 99%
nt Date =	See	of Count =	Elapsed Time from Treatment = 8 Days			1st Count	Den 1		88	26	15	68	15	96		71	of Count =	Elapsed Time from Treatment = 11 Days	8	100	8	٤	۶ ۶	8	86	82		
Treatm		Date	ime from T			1040	151	700	82	88	001	06	9	8	١	۰	Date	Time from	95	8	8	2 2	2	88	001	88		
			Elapsed 1				-	i de	8	2	26	43	ıĘ	7	5 5	74		Elapsed	98	130	10	`	2	8	46	22		
Weed Seed: Echinochloa crusgalli						T	reatment	Treatment Solution	Control 0 ppm, 0% Emulsifier	0 ppm, 5% Emulsifier	0 ppm, 50% Emulsifier	500 ppm, 5% Emulsifier	500 nnm 50% Emulsifier	and the same of th	1000 ppm, 5% Emuisitier	1000 ppm, 50% Emulsifier			Control 0 ppm. 0% Emulsifier	O 69/ Emulifier	o ppin, 578 ministre	0 ppm, 50% Emulsifier	500 ppm, 5% Emulsifier	500 ppm, 50% Emulsifier	1000 ppm, 5% Emulsifier	1000 nom 50% Emulsifier		NEW SEED Anova Single Factor
Weed Seed								Seed Age	NEW SEED	NEW SEED	NEW SEED	NEW SEED	NEW CEED	WEN SELE	- 1	NEW SEED			OI D SFFD	4335	OLD SEED	OLD SLED	OLD SEED	OLD SEED	OLD SEED	OID SEED	OLD SELE	

NEW SEED Anova Single Factor			S)	SIGNIFICANT DIFFERENCE @ 99%	FERENCI	%86 ⊕ :	OLD SEED Anova Single Factor) Factor		ž	No Significance	
2000							SUMMARY					
SOUND THE PROPERTY OF THE PROP	Count	Sum	Average	Variance			Groups	Count	Sum Average	verage	Variance	
		0.24	900	0 0072			Row 1	4	008	0 02	90000	
- MOX	+ ◀	0	0.05	0 0			Row 2	4	0	0	0	
NOW 2	•	9	0.235	0.1687			Row 3	4	0	0	0	
Kow 3	, .	5 6	2000	900000			Row 4	4	1.45	03625	0 140225	
Row 4	₹	620		0.003223			, C	•	5	0.025.0	0.000833333	
Row 5	4	1 93	0 4825	0 13075833			CMON		5 6	200	0.447236	
S and C	7	0.86	0215	0 10036667			Kow 6	4	9		227110	
Bow 7	4	2.7	0 675	0 12016667			Row 7	4	0.19	0.0475 0	0.00091007	
							ANOVA					
ANOVA	90	ļ	371	9	Darelino	Fodt	Source of Variation	SS	₽ Jo	SW	<u> </u>	P-value F crit
Source of Variation	3	5	MC CO	0 000000000	204763	6727418	Retween Groups 0 469543	469543	9	078257 2	110372725 0	6 0 078257 2 110372725 0 095145 2 572712
Between Groups Within Groups	1 3890357	2°	21 0 0772024	0.0772024	7		Within Groups 0.778725	.778725	2	21 0 037082		
77	2 0403957	7.					Total 1	Total 1 248268	27			
i otal	20102031	اا										

FIG. 10a

% Mortality of New Weed Seeds Over Control Barnyard Grass



Treatment FIG. 10b

Chloropicrin EC - Lab Tests for Weed Seed Mortality

Seed Germination C Date of Count = 11/05/1999 Elapsed Time from Treatment = 8 Days Elapsed Time from Treatment = 8 Days Elapsed Time from Treatment = 11/05/1999 Elapsed Time from Treatment = 8 Days Elapsed Time from Treatment = 11/05/1999 Elapsed Time from Treatment	BINDWEED W1 Seed Convoludus amoneis		Treatm	Treatment Date = 10/28/1999	10/28/1999	z	Number of Seeds/Dish =	ds/Dish =	100											
Elapted Time from Treatment = 8 Days Elapted Time from Treatment = 12 Days 10	. Convoirment of vensus			See	Germin	ition Cou	nts						-	(% Mort	ality)			_		
Figure Time from Treatment S Days Elapsed Time from Treatment 12 Days State Stat			Date	of Count =	1/05/1999		Date	Count = 1	6661/60/1											***
1st Count Sep Rep	Elapsed	Time from 1	reatment =	8 Days	Elapsed	lime from Ti	eatment =	12 Days												
State Stat																			<u> </u>	Aortality
Fig. Count Fig													İst	Count				2nd Cou		Above
Rep 1 Rep 2 Rep 3 Rep 4 Ntean Rep 4 Ntean Rep 3 Rep 3 Rep 4 Ntean Rep 3 Rep 3 Rep 4 Ntean Ntean <th< td=""><td>£</td><td></td><td>1040</td><td>ţ.</td><td></td><td></td><td>2nd C</td><td>ount</td><td></td><td></td><td>1st Cou</td><td>Ħ</td><td>ă</td><td>8 Days</td><td></td><td>2nd Cou</td><td>•</td><td></td><td></td><td>ontrol</td></th<>	£		1040	ţ.			2nd C	ount			1st Cou	Ħ	ă	8 Days		2nd Cou	•			ontrol
KPD 1 KRD 2 NRD 3 77% 72% 79% 19% 19% er 15 20 23 38 84 88% 80% 77% 77% 71% 71% 71% 71% 71% 71% 71% 71% 74%	-		Ter of) Carl	7 4	1 440		Ren 3	Rep 4	_	Rep 2 F			_		Rep 2 R	-	_		
15 20 23 28 80 64 72 73 88 88 88 88 88 88 88		Rep I	Kep 2	Kep 3	KCD 4	1 000			3,5	-	80%	⊢	_	H	H	-	-	_		%0
16 22 23 14 29 29 27 16 81% 81% 81% 84%	NEW SEED Control 0 ppm, 0% Emulsifier	15	20	53	87	8	5 6	3 2	2	7070	+	╁	$oldsymbol{\downarrow}$	╁	%17	-	-	_		%95
19 15 15 16 51 63 53 65 88% 86% 93% 88% 41% 45% 35% 41% 44% 49% 15 15 14 7 54 613 54 56 15 15 15 15 15 15 15		91	22	23	4	2	67		2 3	2/10	+	╀	\downarrow	╁	╀	\vdash	├-	_	_	23%
12 16 14 7 34 63 25 05 05 07 80 8 87 87 87 87 87 87 87 87 87 87 87 87 8		19	15	15	91	21	2	۶ (s	3 5	0/10	+	+-	╀	%8% %8%	╀	╀	╀	Ļ	_	22%
25 13 22 17 62 13 74 50 77% 87% 70% 10.0% 86% 80% 80% 90% 84% 85% 90% 84% 85% 90% 90% 90% 90% 90% 90% 90% 90% 90% 90	50 ppm, 5% Emulsifier	12	92	4	7	22	3	2	3	000	╀	╁	\downarrow	81%	180%	╀╌	╀	L		30%
8 15 5 12 14 20 10 16 92% 85% 95% 95% 95% 95% 95% 95% 90% 90% 90% 10 16 95% 95% 95% 95% 95% 95% 95% 95% 95% 95%		25	13	22	17	62	13	4	8	8,67	+	╀	+	%•00	%98	╀	╀	-		%99
er	1	80	15	2	12	4	8	2	9	%76	+	+	+	****	+	╀	╀	-	_	72%
		\$	8		4	7	15	,	10	%56	-	-		9,56	-					
2D Control O ppm, 3% Emulsifier 2D O ppm, 5% Emulsifier 2D Oppm, 5% Emulsifier 2D Stop ppm, 5% Emulsifier ED 500 ppm, 5% Emulsifier ED 1000 ppm, 5% Emulsifier ED 1000 ppm, 5% Emulsifier ED 1000 ppm, 5% Emulsifier													-				_			
ED Oppm, 5% Emulsifier ED Oppm, 50% Emulsifier ED S00 ppm, 50% Emulsifier ED 1000 ppm, 50% Emulsifier ED 1000 ppm, 50% Emulsifier ED 1000 ppm, 50% Emulsifier											+	\dagger			†	-	-			
ED 0 ppm, 50% Emulsifier ED 500 ppm, 50% Emulsifier ED 1000 ppm, 50% Emulsifier ED 1000 ppm, 50% Emulsifier ED 1000 ppm, 50% Emulsifier												+	+		1	+			-	
ED 500 ppm, 5% Emulsifier ED 500 ppm, 50% Emulsifier ED 1000 ppm, 5% Emulsifier ED 1000 ppm, 50% Emulsifier	5D 0 ppm, 50% Emulsifier									1	+	+	\dagger		Ť					
ED 500 ppm, 50% Emulsifier ED 1000 ppm, 5% Emulsifier ED 1000 ppm, 50% Emulsifier	ED 500 ppm, 5% Emulsifier										\dagger	+	+	+	1	-	-			
2D 1000 ppn, 5% Emulsifier D 1000 ppn, 5% Emulsifier	50 ppm, 50% Emulsifier										+	+	t		-		-			
1000 ppm, 50% Emulsifier	2D 1000 ppm, 5% Emulsifier										+	+				$\frac{1}{1}$				
	ED 1000 ppm, 50% Emulsifier							-	W. C.		1		-	_						

SIGNIFICANT DIFFERENCE @ 99%

SHIMMARY				
Groups	Count	Sum	Average	Variance
Row 1	4	0.75	0 1875	0.00075833
	4	2 97	0 7425	0 00275833
•	7	1.86	0415	0.00438867
2 4 1	•	1.63	0 4075	0 4075 0 00309167
, u	4	- 28	0.4875	0 070625
0 MOX	. 4	3.4	0.85	0 00173333
D.M.O.	•	361	0 9025	0 001425

SS of MS F 1.8860214 6 0.2815096 23.2487464 7 0.254275 21 0.0121083 1.9432964 27	ANOVA Source of Variation Between Groups Within Groups Total
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% Mortality of New Weed Seeds Over Control Bindweed



FIG. 11b